

Inventor(s): MANABE, et al.

Appln. No.: 10

052,347

Series Code ↑

Serial No. ↑

Filed: January 23, 2002

Hon. Commissioner of Patents  
Washington, D.C. 20231

Group Art Unit 2812

Examiner: S. Mulpuri

Atty. Dkt. P

0282475

F01-257-UScont

M#

Client Ref

Appln. Title: A METHOD FOR MANUFACTURING A  
GALLIUM NITRIDE GROUP  
COMPOUND SEMICONDUCTOR

Sir:

**REPLY/AMENDMENT/LETTER**

Date: September 17, 2002

This is a reply/amendment/letter in the above-identified application and includes the herewith attachment of same date and subject which is incorporated hereinto by reference and the signature below is treated as the signature to the attachment in absence of a signature thereto.

**FEE REQUIREMENTS FOR CLAIMS AS AMENDED**

## 1. Small Entity claim

- A. ☒ NOT made  
 B. ☐ Withdrawn  
 C. ☐ made herewith  
 D. ☐ made previously
- For B & C  
 See **Required  
 Separate Paper**  
 (Pat-256)

Claims remaining after amendment	Highest number previously paid for	Present Extra	Large/Small Entity	Additional Fee	Fee Code Lg/Sm
2. Total Effective Claims	43	**minus 34	9	x \$18/\$9 = + \$162	103/203
3. Independent Claims	2	***minus 3	0	x \$84/\$42 = + \$0	102/202
4. If amendment enters <u>proper</u> multiple dependent claim(s) into this application for <u>first</u> time (leave blank if this is a reissue application)..... add				+ \$280/\$140 = + \$0	104/204
5. Original due Date: September 17, 2002 <input type="checkbox"/> NONE					
6. Petition is hereby made to extend the original due date to cover the date this response is filed for which the requisite fee is attached					
				(1 mo) \$110/\$55 =	115/215
				(2 mos) \$400/\$200 =	116/216
				(3 mos) \$920/\$460 =	117/217
				(4 mos) \$1,440/\$720 =	118/218
				(5 mos) \$1,960/\$980 =	128/228
7. Enter any previous extension fee paid since above original due date and subtract				- \$0	
8.				<b>Extension Fee</b> + \$110	
9. If <b>Terminal Disclaimer</b> attached, add Rule 20(d) official fee .....				+ \$110/\$55	+ \$0 148/248
10. If IDS attached requires Official Fee under Rule 97 (c), ..... add				+ \$180	126
or if Rule 97(d) Request ..... add				+ \$180	126
11. After-Final Request Fee per rules 129(a) and 17(r) .....				+ \$740/370	+ \$0 146/246
12. No. of additional inventions for examination per Rule 129(b) .....				x \$740/370 ea	+ \$0 149/249
13. Request for Continued Examination (RCE) .....				+ \$740/370	+ \$0 1179/1279
14. Petition fee for .....				+ \$0	
15.				<b>TOTAL FEE =</b>	<b>\$272</b>
16. *If the entry in this space is less than entry in next space, the "Present Extra" result is "0".					
17. **If the "Highest number previously paid for" in this space is less than 20, write "20" in this space.					
18. ***If the "Highest number previously paid for" in this space is less than 3, write "3" in this space.					
				<b>PLEASE CHARGE OUR DEP. ACCT</b>	

Our Deposit Account No. 03-3975)

(Our Order No. 031317 0282475

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**CHARGE STATEMENT:** The Commissioner is hereby authorized to charge any fee specifically authorized hereafter, or any missing or insufficient fee(s) filed, or asserted to be filed, or which should have been filed herewith or concerning any paper filed hereafter, and which may be required under Rules 16-18 (missing or insufficiencies only) now or hereafter relative to this application and the resulting Official Document under Rule 20, or credit any overpayment, to our Accounting/Order Nos. shown above, for which purpose a duplicate copy of this sheet is attached.

This CHARGE STATEMENT does not authorize charge of the issue fee until/unless an issue fee transmittal sheet is filed.

Query: Is appeal deadline now? If so, file Notice of Appeals separately.

Pillsbury Winthrop LLP

Intellectual Property Group

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**NOTE: File this cover sheet in duplicate with PTO receipt (PAT-103A) and attachments**

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re PATENT APPLICATION OF  
MANABE *et al.*

Appln. No.: 10/052,347

Filed: January 23, 2002

Title: A METHOD FOR MANUFACTURING A GALLIUM NITRIDE GROUP COMPOUND  
SEMICONDUCTOR



Confirmation No.: 4113

Group Art Unit: 2812

Examiner: S. Mulpur

7/Evt. ①  
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RECEIVED  
TECHNOLOGY CENTER 2800  
SEP 19 2002

September 16, 2002

\* \* \* \* \*

AMENDMENT

Hon. Commissioner of Patents  
Washington, D.C. 20231

Sir:

In response to the Office Action dated May 17, 2002, please amend the above-identified application as follows.

IN THE CLAIMS

Please amend claims 19 and 20 as follows:

19. (Amended) A method for producing a gallium nitride group compound semiconductor by using an organometallic compound vapor phase epitaxy, comprising:  
setting a mixing ratio of a silicon-containing gas and other raw material gases during said vapor phase epitaxy at a desired value in a range over which conductivity of the gallium nitride group compound semiconductor increases substantially proportionally with said mixing ratio so as to obtain a desired conductivity (1/resistivity) of said gallium nitride group compound semiconductor; and  
forming said gallium nitride group compound semiconductor by feeding said silicon-containing gas and other raw material gases at a mixing ratio set above.

20. (Amended) A method for producing a gallium nitride group compound semiconductor by using an organometallic compound vapor phase epitaxy, comprising:  
setting a mixing ratio of a silicon-containing gas and other raw material gases during said vapor phase epitaxy at a desired value in a range over which carrier concentration of the

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